

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**MAR 24 2005**

Applicant: Neil J. Goldfine, Vladimir A. Zilberstein, Darrell E. Schlicker David C. Grundy, Ian C. Shay and Andrew P. Washabaugh

Application No.: 10/788,526 Group Art Unit: 2862

Filed: February 27, 2004 Examiner: Not assigned

Confirmation No.: 6893

Title: HIGH RESOLUTION INDUCTIVE SENSOR ARRAYS FOR MATERIAL AND DEFECT CHARACTERIZATION OF WELDS

**CERTIFICATE OF MAILING OR TRANSMISSION**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or is being facsimile transmitted to the United States Patent and Trademark Office on:

03/22/05 Ellen T. Spear

Date

Signature

Ellen T. Spear

Typed or printed name of person signing certificate

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Information Disclosure Statement is submitted:

under 37 CFR 1.129(a), or  
(First/Second submission after Final Rejection)

under 37 CFR 1.97(b), or

(Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination).

under 37 CFR 1.97(c) together with either:

a Statement under 37 CFR 1.97(e), as checked below, or

a \$180.00 fee under 37 CFR 1.17(p), or

(After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)

under 37 CFR 1.97(d) together with:

a Statement under 37 CFR 1.97(e), as checked below, and

a \$180.00 fee under 37 CFR 1.17(p), or

(Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)

under 37 CFR 1.97(i):

Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.

(Filed after payment of issue fee)

Statement Under 37 CFR 1.97(e)

- Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or
- No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Statement Under 37 CFR 1.704(d) (Patent Term Adjustment)

Applies to original applications (other than design) filed on or after May 29, 2000

- Each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.

Enclosed herewith is form PTO-1449:

Copies of the cited references are enclosed.

Copies of issued U.S. patents and published U.S. applications are not required and are not being provided.

Copies of the cited references are enclosed except those entered in prior application, U.S. Application No. [ ], to which priority under 35 U.S.C. 120 is claimed. [The earlier application contains copies of the cited references.]

The listed references were cited in the enclosed International Search Report in a counterpart foreign application.

The "concise explanation" requirement (non-English references) for reference(s) [ ] under 37 CFR 1.98(a)(3) is satisfied by:

the explanation provided on the attached sheet.

the explanation provided in the Specification.

submission of the enclosed International Search Report.

submission of the enclosed English-language version of a foreign Search Report and/or foreign Office Action.

the enclosed English language abstract.

[ X ] Applicant requests that the following non-published pending applications be considered:

Examiner's  
Initials

U.S. Patent Application No. 09/666,524, by Neil J. Goldfine, Darrell E. Schlicker, David C. Clark, Karen E. Walrath, Volker Weiss, William M. Chepolis, Andrew P. Washabaugh, Vladimir A. Zilberstein, Vladimir Tsukernik, filed September 20, 2000, Docket No.: 1884.1020-006.

U.S. Patent Application No. [ ], by [inventor(s)], filed [ ], Docket No.: [ ]

U.S. Patent Application No. [ ], by [inventor(s)], filed [ ], Docket No.: [ ]

---

Examiner

---

Date

[ ] A copy of each above-cited application, including the current claims, is enclosed, except any application filed on or after June 30, 2003, which has been scanned into the PTO's Image File Wrapper (IFW) system and is available to the examiner.

[ ] A copy of each above-cited application, including the current claims, is enclosed, except those entered in prior application, U.S. Application No. [ ], to which priority under 35 U.S.C. 120 is claimed.

The Examiner is requested to return a copy of the above list of pending applications indicating which references were considered with the next office communication.

It is requested that the information disclosed herein be made of record in this application.

Method of payment:

[ ] A check for the fee noted above is enclosed, or the fee has been included in the check with the accompanying Reply. A copy of this Statement is enclosed.

[ ] Please charge Deposit Account 08-0380 in the amount of \$[ ]. A copy of this Statement is enclosed.

[X] Please charge any deficiency in fees and credit any overpayment to Deposit Account 08-0380.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By *Lubashev*  
Lyudmila Lubashev  
Registration No.: 55,408  
Telephone: (978) 341-0036  
Facsimile: (978) 341-0136

Concord, MA 01742-9133  
Dated: 3/22/05

|  |  |  |                                  |
|--|--|--|----------------------------------|
| PTO-1449 REPRODUCED<br><br><b>INFORMATION DISCLOSURE STATEMENT<br/>IN AN APPLICATION</b><br><br>O P E<br>JCG<br>January 7, 2005<br>(Use several sheets if necessary) |  | ATTORNEY DOCKET NO.<br>1884.2005-003     | APPLICATION NO.<br>10/788,526    |
|  |  | FIRST NAMED INVENTOR<br>Neil J. Goldfine | FILING DATE<br>February 27, 2004 |
|  |  | EXAMINER<br>Not assigned                 | CONFIRMATION NO.<br>6893         |
|  |  |  | GROUP<br>2862                    |

MAR 24 2005

| U.S. PATENT DOCUMENTS |          |  |                            |
|-----------------------|----------|--|----------------------------|
| EXAMINER INITIAL      | REF. NO. | DOCUMENT NUMBER<br>Number-Kind Code (if known) | ISSUE DATE /<br>MM-DD-YYYY |
|                       | AA       | 4,441,010                                      | 04/03/1984                 |
|                       | AB       | 5,015,951                                      | 05/14/1991                 |
|                       | AC       | 5,047,719                                      | 09/10/1991                 |
|                       | AD       | 5,146,163                                      | 09/08/1992                 |
|                       | AE       | 5,182,513                                      | 01/26/1993                 |
|                       | AF       | 5,262,722                                      | 11/16/1993                 |
|                       | AG       | 5,389,876                                      | 02/14/1995                 |
|                       | AH       | 5,453,689                                      | 09/26/1995                 |
|                       | AI       | 5,463,201                                      | 10/31/1995                 |
|                       | AJ       | 5,592,078                                      | 01/07/1997                 |
|                       | AK       | 5,793,206                                      | 08/11/1998                 |
|                       | AA2      | RE.36,986                                      | 12/12/2000                 |
|                       | AB2      | US 6,168,066 B1                                | 01/02/2001                 |
|                       | AC2      | US 6,377,039 B1                                | 04/23/2002                 |
|                       | AD2      | 20020158626                                    | 10/31/2002                 |
|                       | AE2      |  |                            |
|                       | AF2      |  |                            |
|                       | AG2      |  |                            |
|                       | AH2      |  |                            |
|                       | AI2      |  |                            |
|                       | AJ2      |  |                            |
|                       | AK2      |  |                            |
|                       | AA3      |  |                            |
|                       | AB3      |  |                            |
|                       | AC3      |  |                            |

|          |                 |
|----------|-----------------|
| EXAMINER | DATE CONSIDERED |
|----------|-----------------|

|  |  |  |                                  |
|--|--|--|----------------------------------|
| PTO-1449 REPRODUCED<br><br><b>INFORMATION DISCLOSURE STATEMENT<br/>IN AN APPLICATION</b><br><br>January 7, 2005<br><br>(Use several sheets if necessary) |  | ATTORNEY DOCKET NO.<br>1884.2005-003     | APPLICATION NO.<br>10/788,526    |
|  |  | FIRST NAMED INVENTOR<br>Neil J. Goldfine | FILING DATE<br>February 27, 2004 |
|  |  | EXAMINER<br>Not assigned                 | CONFIRMATION NO.<br>6893         |
|  |  |  | GROUP<br>2862                    |

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

|     |   |
|-----|---|
| AR  | Arbegast, W.J., and Hartley, P.J. (1998), "Friction Stir Weld Technology Development at Lockheed Martin Michoud Space Systems - An Overview", 5th International EWI Conference on Trends in Welding Research, 1 - 5 June, 1998, Pine Mountain, GA.                      |
| AS  | Ditzel, P., and Lippold, J.C. (1997), "Microstructure Evolution During Friction Stir Welding of Aluminum Alloy 6061-T6", Edison Welding Institute, Summary Report SR9709.   |
| AT  | Goldfine, N., Schlicker, D. , Sheiretov, Y., Washabaugh, A., Zilberstein, V., Lovett, T., "Conformable Eddy-Current Sensors And Arrays For Fleetwide Gas Turbine Component Quality Assessment," ASME Turbo Expo Land, Sea, & Air 2001, 4-7 June, 2001, New Orleans, LA. |
| AU  | Mahoney, M.W., Rhodes, C.G., Flintoff, J.G., Spurling, R.A., and Bingel, W.H. (1998), "Properties of Friction-Stir-Welded 7075 T651 Aluminum", Metallurgical and Materials Transactions A, vol. 29A, July 1998, pp. 1955 - 1964.  |
| AV  | Nondestructive Testing Handbook, 2nd Edition, Volume 4: Electromagnetic Testing, American Society for Nondestructive Testing, 1986, pp. 378-385, 388-399, 405-414, 420 and 421.   |
| AW  | Rummel, W. and W. Arbegast, Proc. ASNT Spring Conf., 24-27 March, 1980, Philadelphia, PA, pp.201-208.   |
| AX  | Presentation Slides titled "Autogeneous Friction Stir Weld LOP Defect Detection and Sizing Using Directional Conductivity Measurements with MWM Eddy-Current Sensor," Aeromat 2000, Seattle, WA.  |
| AY  | Presentation Slides titled "Friction Stir Weld LOP Defect Detection, Using New High Resolution MWM-Arrays and MWM Eddy-Current Sensor," Aeromat 2001, Long Beach, CA.   |
| AZ  | NASA SBIR proposal titled "High Resolution Inductive Imaging of Critical Metal Joints and Components," submitted June 5, 2001.  |
| AR2 |   |
| AS2 |   |
| AT2 |   |
| AU2 |   |

|          |                 |
|----------|-----------------|
| EXAMINER | DATE CONSIDERED |
|          | /               |